I. New-Matter Rejections

Claims 1-4 and 6-31 reciting the limitation *"consensus splice acceptor site"* stand rejected under 35 U.S.C. § 112, first paragraph, insofar as the limitation *"lacks basis in the original specification"* (see Office Action, page 3, first full paragraph). Applicants respectfully traverse this rejection.

The term "splice acceptor site" used to describe Applicants' invention is a sequence which conforms with the consensus splice acceptor site sequence. As the Examiner admits, the MOV-9 splice acceptor site is fully taught in the specification. Applicants submit that it was well known to the ordinarily skilled artisan at the time of filing that the Moloney murine leukemia virus sequences, from which the MOV-9 sequences are derived, contain a consensus splice acceptor site. To support their position, Applicants submit herewith the reference, Mount (1982) *Nucleic Acids Res.* **10**:459-472 (Appendix A), which predates the earliest priority date claimed by Applicants. The Examiner's attention is directed to page 489 in Mount (under the heading "Consensus sequences"), where the author states that,

> *"the most significant result of the present compilation is the observation that virtually all splice junction sequences conform to a well defined consensus sequence."*

Later the author further provides that acceptor sequences conform to a four nucleotide sequence C or TAG/G. The Examiner's attention is also directed to Shinnick *et al.* (1981) *Nature* 293: 543-548 (Appendix B) where it is stated that the Moloney murine leukemia virus genome contains *"a possible 3' splice acceptor at 560-568 (6/7 match with consensus acceptor sequence)"*, (underline added for emphasis).

Hence, it was well known in the art at the time of the invention that the Moloney murine leukemia virus splice acceptor site immediately prior to the *env* gene was a consensus splice acceptor site. "[A] patent need not teach, and preferably

omits, what is well known in the art." *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 231 U.S.P.Q. 81 (Fed. Cir. 1986).

Based on the foregoing remarks, the rejection of claims 1-4 and 6-31 under 35 U.S.C. § 112, first paragraph, should be reconsidered and withdrawn.

II. § 103 Rejections

The Examiner has maintained the rejections of claims 35-37 under 35 U.S.C. § 103 as being unpatentable over Temin *et al.* in Gene Transfer, Kucherlapati Ed., Plenum Press, N.Y. pp 149-187 (1986) in view of Cone *et al.* (1984) *Proc. Natl. Acad. Sci. USA* 81:6349-6353 and Bender *et al.* (1987) *J. of Virol.* 61(5):1639-1646. Applicants respectfully request the reconsideration of these rejections in light of the above amendments to claims 35-37, new claims 42 and 43, and the following remarks.

Amended claim 35 now requires that the claimed recombinant retroviral particle be produced by a producer cell comprising the recombinant retroviral vector of claim 1. New claims 42 and 43 similarly require a claimed recombinant retroviral particle be produced by a producer cell comprising the recombinant retroviral vector of claim 10 or 21, respectively. Such a producer cell is described, for example, at page 18, lines 18-31 and at page 19, lines 1-14. Hence, the recombinant retroviral particles of claims 35-37 and 42-43 are produced by a cell comprising an incorporated vector devoid of a selectable marker gene used in the transfection of the cell which (a) comprises a consensus splice acceptor site, and (b) is useful to nonselectively transduce cells.

As discussed in Applicants' most recent correspondence (mailed December 1, 1998), neither Temin *et al.* nor Bender *et al.* teach or suggest vectors devoid of a selectable marker used in the transfection of the cell which (a) comprise a consensus splice acceptor site, (b) are useful to nonselectively transduce cells, and (c) does not contain a complete selectable marker gene. Cone *et al.* also does not teach or suggest vectors devoid of a selectable marker used in the transfection of the cell which (a)

comprise a consensus splice acceptor site, and (b) are useful to nonselectively transduce cells.

Since the three cited references fail to teach or suggest required features in the vectors of claims 1, 10, or 21, they cannot teach or suggest a retroviral particle produced by a cell transfected by one of these claimed vectors. Accordingly, this § 103 rejection of claims 35-37 over Temin *et al.* in view of Cone *et al.* and Bender *et al.* should be reconsidered and withdrawn.

CONCLUSIONS

Applicants posit that the presently maintained rejections of the pending claims have been fully overcome by amendment and/or argument. Accordingly, Applicants respectfully submit that the pending claims are in condition for allowance. If the Examiner believes that any further discussion of this communication would be helpful, he is encouraged to contact the undersigned by telephone.

Submitted herewith is a Supplemental Information Disclosure Statement, as well as the appropriate fee pursuant to the provisions set forth in 37 C.F.R. § 1.17(p).

A request for a Two (2) Months Extension of Time, up to and including June 27, 1999, is included herewith. Pursuant 37 C.F.R. § 1.136(a)(3), the Examiner is authorized to charge any fee under 37 C.F.R. § 1.17 applicable in the instant, as well as in future communications, to Deposit Account No. 08-219. Such authorization should be treated as a constructive petition for extension of time in the concurrent as well as future replies.

Respectfully submitted,
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